Ministry for the Environment
Manatū Mō Te Taiao

BRIEFING NOTE

Te Awamutu waste to energy proposal

Date Submitted:	28 June 2022	Tracking #: BRF-1805	
Security Level	Policy and Privacy Sensitivity classification	MfE Priority:	Not Urgent

	Action sought:	Response by:
Hon David PARKER, Minister for the Environment	Agree	12 July 2022
To/CC		

Actions for Minister's Office Staff	Return the signed report to MfE Copy in other Ministers if agreed
Number of appendices and attachments	Letter from Zero Waste Network

Key contacts

Position	Name	Cell phone	1st contact
Principal Author	Meg Larken		
Responsible Manager	Amanda Baldwin	022 362 5798	
Director	Glenn Wigley	027 491 7806	✓

Global Contracting Solutions Limited Te Awamutu waste to energy proposal

Key Messages

1. Zero Waste Network wrote to you requesting that you 'call-in' a resource consent application as a proposal of national significance, under Section 142 of the Resource Management Act 1991 (RMA).
2. Global Contracting Solutions Limited's resource consent application is to build a waste-to energy facility in Te Awamutu - the 'Paewira Recycling Plant'. The plant would incinerate an estimated 166,525 Tonnes of wastes per year (456 tonnes per day), to produce electricity for the local and national grid. Feedstocks would include municipal solid waste (~50%), end of life tyres (20%), plastic waste (20%) and shredder flock (10%).
3. The proposal would have some economic and environmental benefits. However, the overall impacts of the proposal would run counter to the Government's strategies for renewable, low emission energy production and a circular economy.
4. Our preliminary assessment is that the proposal for a waste to energy (incineration) plant at Te Awamutu demonstrates some of the factors that you can consider for a ministerial call-in intervention under section 142(3) of the RMA, based on the expected volume of greenhouse gas (GHG) emissions.
5. The volume of feedstock proposed to be processed by the Te Awamutu facility is more than 10-fold higher than the waste-to energy facility recently proposed for Fielding; that facility was for 40 tonnes per day (or about up to 15,000 tonnes per year).
6. Waikato Regional Council, who will be processing the Te Awamutu facility air discharge consent, is unable to consider GHG decisions in their consent decisions (ie, section 104E). Initial indications are that the GHG emissions would be between 65 kt and 150 kt CO2-e, depending on offsets. At either level, this amount is significant. S9(2)(f)(iv) [redacted]
7. A call-in intervention may not be necessary if the regional council first determines that the application is for an activity that would be prohibited under the National Environmental Standards for Air Quality (NES-AQ). Resource consent applications cannot be lodged for prohibited activities. Clause 12 of the NES-AQ prohibits "high-temperature hazardous waste incinerators" which may apply at least in part to the proposal. However, we believe it is possible the application may not be captured by this definition or could be modified to remove elements that would be prohibited under the NES-AQ.
8. If the councils give consent to the application without notification, then it cannot be called in (section 144(b)). Our advice on the next step is that we contact the councils to find out whether they intend to notify the application. If they do not intend to notify (which is

unlikely), then we would recommend you take the first step in the call-in process (ie seeking advice from the EPA). If the councils do intend to notify, we recommend waiting for the notification because this will confirm that the regional council has accepted the application as not prohibited under the NES-AQ, and the application may have amended information to ensure it is not a prohibited activity.

9. We will also validate the projected GHG emissions by seeking access to the independent report referred to in the application.

Recommendations

We recommend that you:

a. **Note** our preliminary assessment that the proposal for a waste to energy (incineration) plant at Te Awamutu demonstrates some of the factors that you can consider for a ministerial call-in as a proposal of national significance under section 142 of the RMA, based on the expected volume of GHG emissions.

b. **Note** that we will be in contact with the Waipā District Council and Waikato Regional Council to confirm if they intend to notify the application.

c. **Agree** to wait until the regional council advises on the likely notification before we provide further advice on starting a call-in process.

Yes/No

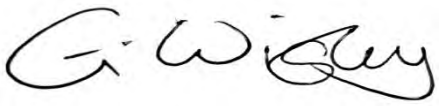
d. **Note** that if you decide to start a call-in process, the first step would be for you to seek advice from the EPA on whether the proposal is consistent with the s142 considerations for a proposal of national significance.

e. **Note** we will also clarify the estimated volume of GHG emissions.

f. **Forward** copies of this briefing note to the Minister for Energy, Hon Megan Woods, and the Minister for Climate Change, Hon James Shaw.

Yes/No

Signature

Glenn Wigley Director - Policy and Regulatory **Waste and Resource Efficiency**	

Hon David PARKER, Minister for the Environment	
[Date field]	

Purpose

1. Your office requested advice about the attached letter from Zero Waste Network (ZWN), regarding Global Contracting Solutions Limited's resource consent application to build a waste-to energy facility in Te Awamutu (Attachment 1).

Context

10. ZWN wrote to you requesting that you 'call-in' a resource consent application as a proposal of national significance, under Section 142 of the Resource Management Act 1991 (RMA).

The resource consent application for the proposed Te Awamutu waste to energy facility

11. The proposed 'Paewira Recycling Plant' waste to energy facility in Te Awamutu would use approximately 456 tonnes per day of refuse derived fuel (RDF) to produce electricity for the local and national grid. The RDF will be produced by shredding, sorting, and dehydrating solid waste, consisting of the combustible components of municipal solid waste (~50%) and other waste - end of life tyres (20%), plastic (20%) and shredder flock (10%, combustible materials left over from a vehicle once recyclables have been stripped out). The proposal states that the facility would remove metals and valuable plastics from the feedstock and send these for recycling (the types of plastics is not specified and we note plastics are likely to be the highest calorific value feedstock). The RDF is combusted to heat water converting it to steam, and the pressure from the steam used to drive turbine blades. The process would produce a hazardous waste ash, which would need to be managed accordingly and landfilled.

12. The proposal triggers several district and regional level resource consents. Of note is the associated air discharge consent application to the Waikato Regional Council. No decision has yet been made on whether to publicly notify the applications. Waipā District Council is liaising with Waikato Regional Council to decide whether a joint decision-making process for the resource consents will be required.

13. As part of its considerations, the regional council will need to determine whether the waste incinerator is a prohibited "high temperature hazardous waste incinerator" under regulation 12 of the National Environmental Standards for Air Quality (NES-AQ). The applicant argues that the facility would not be captured by the NES-AQ because it is not "principally" designed and operated for burning hazardous waste (as required for the regulations to apply) but instead is designed and operated principally to generate electricity. If municipal solid waste and shredder flock are to be used as feedstocks, it is inevitable that potentially significant volumes of hazardous waste materials would be incinerated. For example, bromine, chlorine and heavy metal contaminants could arise from automobile and e-waste shredding for the purposes of incineration.

14. The application and supporting documents highlight the proposed Paewira Plant's economic and environmental benefits. It would produce approximately 131 GWh energy per year. The application attaches a letter from Transpower noting that the Waikato region's electricity demand is set to grow approximately 32 percent over the next 15 years, and the proposed Paewira generation would help defer the timing of future transmission grid upgrades to meet Te Awamutu's growing demand. Other benefits would be a reduction in waste going to landfill and an estimated 60 new jobs.

Analysis and advice

15. Our preliminary assessment is that the proposal for a waste to energy (incineration) plant at Te Awamutu warrants a ministerial call-in intervention under section 142 of the RMA, based on the expected volume of GHG emissions. However, a call-in intervention may not be necessary if the regional council first determines that the application would be a prohibited activity under the NES-AQ.

Previous advice regarding Fielding Pyrolysis Plant (BRF-1412)

16. On 6 April 2022, we provided advice to you regarding ZWN's call-in request for a waste-to energy proposal in Fielding (BRF-1412).

17. We recommended that the Fielding pyrolysis consent application continue through Horizon Regional Council's consent processes because there was limited benefit in 'calling-in' the resource consent under section 142 of the Act. This is because:

    a. the concerns of the ZWN had been, or were being addressed at the time of our briefing

    b. the direct effects of onshore greenhouse gas emissions are unlikely to be significant

    c. the council consent process could consider the effects of the activity under its regional plan and the NES-AQ.

18. However, this Te Awamutu proposal is different from the Fielding Pyrolysis Plant because:

- the Paewira plant would be a first for New Zealand, ie incineration of mixed solid waste for the purpose of generating electricity.[1]
- the volume of feedstock proposed to be processed by the Te Awamutu facility is 166,525 tonnes per year - much higher than the Fielding facility which was for 40 tonnes per day (or about up to 15,000 tonnes per year). This means the GHG emissions would be of much greater volume but Waikato Regional Council is unable to consider this in their consent decisions. Councils have been prevented from including specific provisions on greenhouse gases in plans under section 70A of the RMA. This statutory bar will be removed on 30 November 2022 when the climate change provisions under the Resource Management Amendment Act 2020 come into force.

Government strategy

19. The proposal does not align with the Government's long-term strategies for energy and waste. The Emissions Reduction Plan is for more renewable, low-emissions energy production. Waste to energy by incineration of fossil-fuel derived materials is not considered renewable energy by the Ministry because the raw materials are largely derived from fossil fuels. Burning natural gas is potentially more efficient than the

[1] https://www.cambridgenews.nz/2022/02/recycling-plant-would-be-a-first/

proposed plant when taking into account plastics and other fossil energy intense feedstock production emissions.

20. The waste strategy is to work towards a circular economy with more reduction, re-use, re-design and recycling of waste materials. Waste to energy incineration is low on the waste hierarchy and only a good option if it is replacing raw fossil fuels (for instance, the Golden Bay Cement factory uses tyres to replace coal). The Paewira Plant would be feeding electricity into the local and national grid, and the level of fossil displacement would depend on the make-up of regional grid supply and demand at any one time. It is highly unlikely that the Plant would be replacing coal generation most of the time.
21. Further, given New Zealand has renewable energy generation targets, growth in electricity generation capacity via incineration through the use of fossil plastics does not align to these goals. Consequently, growth in generation from renewables in the region may be impacted by the proposed incinerator.
22. Consideration of the overall climate impacts of the Paewira Plant over the life of the facility would be informed by any specific local or regional plans for future energy production and for waste and resource efficiency.

GHG emissions from the proposed plant

23. The resource consent applications and supporting documents do not mention the GHG emissions, but the economic report references a separate report on GHG emissions, which does not appear to be available online. Zero Waste Network's letter says:

    "According to an independent report commissioned as part of the proposal, the facility would have a carbon footprint many times greater than the same amount of waste being sent to landfill, producing 65 kt CO2e per year even after a range of possible offsets have been factored in, that they may not even be able to claim (such as the landscaping around the site, offsetting electricity generation, and recovery of metals and other materials for recycling)."

24. The level of emissions likely from the proposal is unclear due to the unavailability of the independent report referred to in the ZWN letter. However, if the level is 65 kt CO2e per year (taking into account offsets), we consider that the potential level of emissions could be significant. Both the district and regional councils are prevented from considering the effects of a greenhouse gas discharge on climate change under section 104E of the RMA.
25. In assessing whether or not the emissions from the proposed facility may be "nationally significant" under Part 6AA of the RMA, we have made a comparison with the proposed national rules for industrial process heat and with the Climate Implications of Policy Assessments (CIPA).
26. The proposed national rules for controlling emissions from industrial process heat will require resource consent S9(2)(f)(iv)
27. Also, for comparison the Government's threshold for significance for requiring CIPA for policy proposals is for proposals resulting in an impact of 50 kt CO2-e per annum – this is the threshold for when we expect the emissions impact of policy proposals to be modelled.

Benefits of a call-in process for future decisions

A board of inquiry or Environment Court decision on this application could clarify what is a significant level of greenhouse gas emissions from this type of activity. The decision would help guide future decisions by local government on future waste to energy plants, when section 104E is removed from the RMA on 30 November 2022 allowing local authorities to consider greenhouse gas emissions.

The NES Air Quality consideration

If the Paewira Plant is a "high temperature hazardous waste incinerator" under Regulation 12 of the NES-AQ, then the facility would be prohibited outright and the question of call-in would be moot. Waikato Regional Council will form a view on whether or not Regulation 12 applies before it notifies the application. If the regional council forms a view that the activity is prohibited under the NES-AQ, then an application cannot be made. The applicant may also be able to amend the application to remove elements which trigger prohibited activity status under the NES-AQ and it would be more efficient to call-in the application, if that is your decision, after any amendments have been made.

In our view, Regulation 12 likely does not apply (as explained below S9(2)(h)

We believe it is highly likely that the application will be notified, and at this time the application may have been amended. The councils are waiting on the response to their request for information, which may inform their view on whether the NES-AQ applies or not. There might be material changes to the application in response to the request for information which could impact the assessment of whether it should be called in or not.

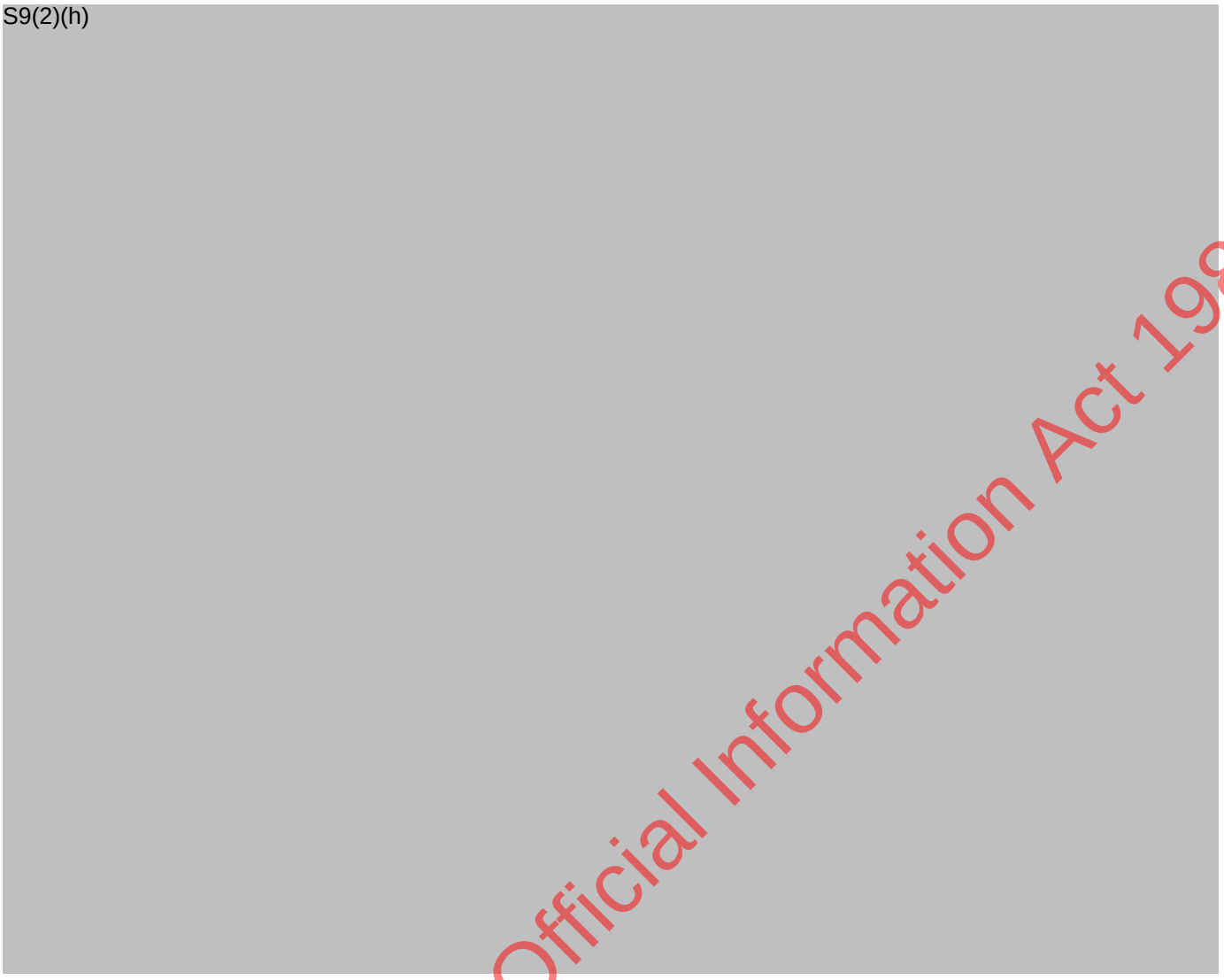
Other considerations

Consultation and collaboration

28. This is initial advice formulated within the Ministry with no external consultation.

S9(2)(h)

S9(2)(h)



Next steps

37. If the councils give consent to the application without notification, then it cannot be called in (section 144(b)). Our advice on the next step is that we contact the councils to find out whether they intend to notify the application. If they do not intend to notify (which is unlikely), then we would recommend you take the first step in the call-in process (ie seeking advice from the EPA). If the councils do intend to notify, we recommend waiting for the notification because this will confirm that the regional council has accepted the application as not prohibited under the NES-AQ, and the application may have amended information to ensure it is not a prohibited activity.

38. If you agree to intervene, we can provide you with a draft letter to the EPA seeking their advice on whether the proposal is nationally significant under RMA s142. A resource consent application can be called in anytime until five days before the first hearing.

39. We will also validate the projected GHG emissions by seeking access to the independent report referred to in the application.

Appendix 1: Letter from Zero Waste Network

Minister David Parker
c/- Parliament
david.parker@parliament.govt.nz

Tēnā koe Minister Parker,

Thank you for your response to our request to call-in the Bioplant NZ pyrolysis resource consent application.

We are writing to again request your powers under Section 142 to call-in the resource consent applications for another waste-to-energy incinerator proposal, this time in Te Awamutu.

We are seeking your intervention in both the District Council and Regional Council applications.

The Te Awamutu incinerator proposal
Global Contracting Solutions Limited (GCS) has applied to the Waipā District Council for a land use consent to build a waste-to-energy incinerator at 401 Racecourse Road in Te Awamutu, an area that is immediately adjacent to existing and planned residential housing and subject to flooding. The company has also applied for three consents for discharge-to-air, for discharge of stormwater to water, and for using cleanfill in a floodplain with the Waikato Regional Council. The facility would burn 166,525 tonnes a year comprising mixed solid waste (78,880 tonnes), plastics (35,058 tonnes), tyres (35,058 tonnes), and flock (the waste material from the metal shredding and separation process - 17,529 tonnes). This facility would be a net contributor to CO2 as well as producing heavy metals, dioxins and other toxic pollutants.

Key criteria of Section 142 have been met
The RMA Section 142 allows for the Minister to call in an application *that is or is part of proposal of national significance.* We submit to the Minister that this is a matter of national significance, and that he should have regard to the following factors:

- *3(a)(i) has aroused widespread public concern or interest regarding its actual or likely effect on the environment (including the global environment):* Incineration in New Zealand has long been a

contentious issue and has aroused widespread public concern and opposition in communities where it is proposed. There are numerous recent and current examples of community opposition to incineration. In 2022, in Feilding, over 140 submissions were received in opposition to the proposed Bioplant pyrolysis incinerator. In Blenheim, a 2018 proposal for a pyrolysis plant at the Bluegums Landfill was fiercely opposed by residents. In South Canterbury in 2021, the Waimate community has begun organising to resist an incinerator that failed to get community support in both Westport and Hokitika where it was originally planned. These community campaigns follow on from nationwide opposition to incineration: 84% of the 1200 submitters to the original Air Quality Standards in 2004 indicated support for a total ban on incineration including waste-to-energy. Although local Feilding residents were only made aware of this proposal in October 2021 after the Manawatū District Council had voted in favour of the lease of land and this application for resource consent had already been received by the Horizons Regional Council, a community group has formed in opposition and has presented at both Councils to express their opposition.

● *3(a)(v) results or is likely to result in or contribute to significant or irreversible changes to the environment (including the global environment):*

There are a number of far-reaching impacts of this project that warrant the Minister's intervention:

- Production of significant and sustained quantities of toxic ash

  One of the major considerations for your intervention must be that this proposal creates large quantities of hazardous waste in the form of 21T/bottom ash and 2T/fly ash per day. Incinerator ash is known to contain heavy metals, Persistent Organic Pollutants (POPs), including dioxins and PFAS, and microplastics. The application says the bottom ash would be sent to landfill, and the fly ash used for low grade concrete. GCS has also consistently claimed in media statements that their proposed facility will produce 'inert' ash. This material is effectively unregulated in New Zealand, yet it is highly toxic. NZ's largest landfill company, Waste Management, has said it is unlikely that this would be accepted in their landfills. The suggestion of using fly ash as a concrete additive risks serious widespread contamination and the socialisation of the costs of the disposal and subsequent clean up of this material. Zero Waste Europe has recently released a report on bottom ash that could assist the Minister in understanding the composition of, approaches to regulation of, and uses of bottom ash. See *Toxic Fallout – Waste Incinerator Bottom Ash in a Circular Economy*. Fly ash is considered to be of even greater concern than bottom ash for its concentration of dioxins and heavy metals. For further information, see *Global control of dioxin in wastes is inadequate: A waste incineration case study*, a conference paper presented at the 2021 International Symposium on Halogenated Persistent Organic Pollutants in Tianjin, China.

- Dioxin contamination of surrounding land, water and air:

  Solid waste incineration (WI)a is listed as one of the largest sources of dioxins (PCDD/Fs) in Annex C to the Stockholm Convention (SC) as it releases dioxins in air emissions but also in fly ashes and other residues from the air pollution control (APC)

system. This proposed facility would emit dioxins, furans, cyanide, mercury, sulphur dioxide, hydrogen chloride & fluoride, particulate matter and other toxic gases to the air that will settle on the surrounding land and adjacent Mangapiko Stream. The best case scenario modelling in the company's resource consent application claims that air emissions will be below acceptable thresholds, however, the application does not account for circumstances in which emissions could exceed these thresholds (such as shutdowns and restarts for maintenance or emergencies), nor does it account for the facility's decreasing efficiency over its lifetime and the consequences on emissions. Along with the immediate health and ecological damage associated with exposure to these pollutants, the longer term management of waste incinerators must be a consideration. All too frequently, the New Zealand Government and Local Government authorities have been left with the costs of remediation of long term site contamination. The legacy of dioxin contamination by the Dow Chemical facility in New Plymouth and the current issues at Tiwai Point should raise considerations about very long term management of any waste incinerator that by its nature produces dioxins.

- Addition of 150 to CO2 emissions:

  According to an independent report commissioned as part of the proposal, the facility would have a carbon footprint many times greater than the same amount of waste being sent to landfill, producing 65 kt CO2e per year even after a range of possible offsets have been factored in, that they may not even be able to claim (such as the landscaping around the site, offsetting electricity generation, and recovery of metals and other materials for recycling). There is 150 kt p/a CO2e from the combustion itself. It goes without saying that we simply cannot allow the building of a facility that produces this level of emissions.

- Threatens decarbonisation of the energy sector

  This application claims again and again that waste-to-energy is renewable, and touts this particular proposal as a "springboard to further uptake of renewables." The New Zealand Government does not define waste incineration as renewable energy, and thus power generation added to the grid by way of waste incineration poses a threat to all of our efforts to decarbonise the energy sector.

● *3(a)(vi) involves or is likely to involve technology, processes, or methods that are new to New Zealand and that may affect its environment:*

New Zealand has no waste-to-energy facilities in operation. If consent were granted, this would be the first of its kind in New Zealand. While the proposed technology is in use elsewhere, New Zealand's waste economy along with our topography, hydrology and wind will have specific and distinct impacts here that must be given consideration.

Concern at lack of public notification

It is also worth noting the situation in Waimate, South Canterbury where a company called South Island Resource Recovery (SIRRL) is proposing to build an incinerator that would burn 350,000T per day. The company has said publicly that it will ask Environment Canterbury for public notification of its consent applications when it lodges them later this year. This approach of open and transparent discussion of the company's plans is in stark contrast to that taken by Global Contracting Solutions in the applications to Waipā District Council and Waikato Regional Councils that argue that no notification at all needs to be undertaken because effects are "less than minor."

Opportunity for research and options

It should be abundantly clear to you that more waste-to-energy incinerator proposals are coming. While you indicated that we should look to the forthcoming Waste Strategy for further guidance on the subject, we are deeply concerned that the consenting of such a major project in advance of that would render much of that advice obsolete as the proverbial 'horse will have bolted' and indeed that horse may well open the floodgates for further incinerator proposals.

A moratorium on waste-to-energy incineration of mixed waste/rubbish until the end of 2027 would enable the full implementation of the Ministry's waste work programme in a way that also aligns with the Infrastructure Commission programme on developing W2E policy, without encumbrances or predisposition to any particular outcome. This time would be an opportunity for the Ministry and local government to embed the results of the waste work programme, and be in a better position to assess the appropriateness of waste-to-energy in the context of the new legislation and strategy, and with the benefit of fuller waste and resource recovery data. Additionally, it would be an opportunity for comprehensive academic review of the role of W2E in Aotearoa NZ.

We look forward to your response in due course.

Ngā mihi mahana,

Dorte Wray
Executive Officer
Zero Waste Network Aotearoa

CC: Grant Robertson, Infrastructure Minister
Eugenie Sage, MP
Sam Buckle, Ministry for the Environment